

UNIVERSITI TEKNOLOGI MARA

**THE DEVELOPMENT, VALIDATION
AND EVALUATION OF RUSNANI
CONCEPT MAPPING (RCM) ON
ACADEMIC PERFORMANCE
OF DIPLOMA
NURSING STUDENTS**

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ABSTRACT

In Malaysian nursing education, concept mapping is not widely practised among the nurse educators and the students. Concept mapping is an innovative teaching learning strategy requires a well-planned and developed concept mapping guideline to guide nurse educators to use the concept as a teaching strategy. Therefore, the researcher aims to develop and evaluate the effectiveness of the Rusnani Concept Mapping (RCM) on academic achievement and clinical practices among diploma of nursing students. The development of this RCM was based on Mohd Afifi Learning Model (MoAFF) and ADDIE Model integrated with the Kemp Model. RCM is a concept mapping guideline that developed by researcher and is validated with face and content validity and the Delphi techniques. The reliability of the RCM was .816. The study design is quasi-experimental with two groups. The experimental and control groups received education using RCM and lecture method respectively. Data were analyzed using descriptive and inferential statistic using independent t-test and paired t- test. P values less than 0.05 were interpreted as significant. In the pre-test, the students taught using RCM had achievement mean scores of 11.23 and SD=2.58, and a mean score of 13.19, SD=1.71 in the post-test with mean gain scores of 1.96 at $p=$ 0.01. In contrast, students taught using lecture method had a mean achievement scores of 10.71 and SD=2.23 in the pre-test and a mean score of 12.60, SD=1.64 in post-test achievement with mean gain scores of 1.89 at $p=$ 0.01. The post-test score of the experimental and control groups was significant ($t=$ 2.53, $p=$ 0.013). In students' grade achievement, the results show an increase in post-test, the percentage pass for the experimental group increased from 95.4% in pre-test to 100% in the post-test. Meanwhile, in control group had increased from 93.57% in pre-test increased to 99.08% in the post-test. The mean concept mapping care plan scores for the experimental and control groups was 65.23, SD=9.28 and 59.33, SD=11.26 respectively with $p=$ 0.01. The result of students' perception regarding concept mapping in experimental group showed as positive moderate with a mean score of 3.44. These findings showed that RCM was effective in promote critical thinking and increase academic performer among nursing students. This study provides additional evidence that RCM is instructionally valuable as a learning method and is an active learning strategy for meaningful learning and motivating superior achievement in students.

Key words: Development, Validation, Evaluation, Rusnani Concept Mapping (RCM), Nursing students

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CHAPTER ONE

INTRODUCTION

1.1 Research Background

The Malaysian Vision 2020 aims to produce productive, innovative, critical and creative thinking human resources. In an effort to produce human capitals who are competitive and meet the needs of the country to stand in line with the most developed countries in the world, our education system should be developed and designed to produce young talents who are knowledgeable, able to think critically and creatively, and able to communicate effectively at the global level. This is parallel with the aims of the National Higher Education Strategic plan (PSPTN, 2007) to produce first class human capital that will be achieved by applying the teaching and learning oriented based on student-centered learning as well as improving the quality of teaching and learning.

In Malaysia, Outcomes Based Education (OBE) approach is implemented at all levels of education. The implementation of OBE at higher learning institutions, both public and private, has been particularly emphasized. As a result, the Quality Assurance Department at the Ministry of Higher Education Malaysia (MOHE) currently known as Malaysia Quality Agency (MQA) was initiated in 2007. OBE approach is oriented to a student-centered learning. Mursheed dan Yusef (2004) stated that *“OBE is considered to be a learner-centered, result-oriented education system which is based on the belief that individuals have the capacity to learn, as well as to demonstrate learning after having completed an educational activity”*. It aims to equip all learners with the knowledge, competence and orientation needed for success after they leave school. Therefore, it is important to change the traditional teaching method that is based on teacher-centered toward student-centered learning to improve the quality of the country’s human capital in achieving 2020 Vision. Improvement in education in nursing is also parts of the effort in achieving 2020 Vision.

Nurse educators are the main driving force in promoting the interest of nursing students to learn. Educators might be successful in teaching the basics, but it does not mean the students will be able to analyze and evaluate what they have taught. There is a need to understand the complex processes involved in critical thinking. This is important to the success of delivering the teaching and learning processes. It is